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# PORIFERA

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# 3. PORIFERA

BY

M. BURTON, D.Sc.

## I.—TITLES

The year of publication of a title is omitted from the reference where it is the same as the volume year of the "Record," namely (1957).

Ankel, W. E. et al. Über den Nachweis von morphologischen und funktionellen Differenzierungen bei den Epithelzellen der Spongillidae. Verh. dtsh. zool. Ges. 1951 1952 : 248–255 10 figs.

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Ankel, W. E. and Wintermann-Kilian, G. Eine bei *Ephydatia fluviatilis* L. neu entdeckte, hochdifferenzierte Zellart, die Büschelzellen (Lophocyten). Verh. dtsh. zool. Ges. 1952 1953 : 375–377 1 fig.

Bassindale, R. & Barrett, J. H. The Dale Fort marine fauna. Proc. Bristol Nats. Soc. 29 (3) 1957 : 227–328 3 figs.

Bautzmann, H. Analoge histofunktionelle Strukturen bei invertebraten und vertebraten Formen von extremstem systematisches Abstand. Anat. Anz. 101 1954 : 9–16 3 pls.

Bouillon, J. see Rasmont, R.

Buddenbrock, W. von. Vergleichende Physiologie 3 Basel & Stuttgart (Birkhäuser Verlag) 1956 : pp. 677 205 figs.

Castiaux, P. see Rasmont, R.

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Ceccatty, M. P. de. Le système nerveux des éponges calcaires et siliceuses. Ann. Sci. nat. zool. (11) 17 1955 : 203–288 2 pls. 30 figs.

Ceccatty, M. P. de (1). La nature sécrétoire des lophocytes de l'Éponge siliceuse *Chondrosia reniformis* Nardo C. R. Acad. Sci. Paris 244 1957 : 2103–2105 1 fig.

Clapp, W. F. & Kenk, R. Marine borers. A preliminary bibliography Pt. 2. Washington, D.C. (Library of Congress) 1957 : pp. viii+350.

Conklin, J. E. *Hyalostelia ancora* Gutschick in the Mississippian of Indiana and Kentucky. Amer. midl. Nat. 56 1956 : 430–433 9 figs.

de Laubenfels, M. W. The sponges of the West-Central Pacific. Ore. St. Monogr. Zool. No. 7, 1954 : 1–306 12 pls.

de Laubenfels, M. W. (1). Preliminary discussion of the sponges of Brazil. Contr. avuls. Inst. oceanogr. S. Paulo. Oceanogr. biol. No. 1 1956 : 1–4.

de Laubenfels, M. W. (2).—New species and records of Hawaiian sponges. Pacif. Sci. 11 1957 : 236–251 15 figs.

de Laubenfels, M. W. see Moore, R. C.

Egami, N. & Ishii, S. Differentiation of sex cells in united heterosexual halves of the sponge, *Tethya serica*. Annot. zool. jap. 29 No. 4 1956 : 199–201 3 figs.

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**Hampton, J. S.** The sponge genus *Retispinopora* in the English Chalk. Proc. Geol. Ass. Lond. **68** 1957 : 53-56 fig.

**Hartman, W. D.** Ecological niche differentiation in the boring sponges (Clionidae). Evolution **11** 1957 : 294-297 1 fig.

**Ishii, S.** see Egami, N.

**Jägersten, G.** On the early phylogeny of the Metazoa : The Bilaterogastrea Theory. Zool. Bidr. Uppsala **30** 1956 : [Sponges 337-341].

**Jones, W. C.** The contractility and healing behaviour of pieces of *Leucosolenia complicata*. Quart. J. micr. Sci. **98** 1957 : 203-217 4 figs.

**Kenk, R.** see Clapp, W. F.

(**Komar, Vl. A.**) [To the stratigraphy of Ordovician and Silurian of the midstream of the river Vilyui]. C.R. Acad. Sci. URSS **112** (4) : 733-735. [In Russian.]

**Levi, C.** Spongiaires des côtes d'Israel. Bull. res. Counc. Israel **6B** (3) 1957 : 201-212 13 figs.

**Librovich, L. S.** Porifera section in the Atlas of the leading forms of the fossil fauna of the USSR. Vol. 4. Lower Carboniferous **1941**. [Sponges pp. 51-52].

**Lutfy, R. G.** On the origin of the so-called mesoblast cells in the amphiblastula larva of calcareous sponges. Cellule **58** 1957 : 231-236 1 fig. 1 pl.

**Lutfy, R. G. (1).** On the placental membrane of calcareous sponges. Cellule **58** 1957 : 239-246 2 figs. 1 pl.

**Marshall, F. H. A. et al.** Physiology of reproduction **1** London (Longmans Green) 3rd edit. **1956** pp. xix+688 text illust.

(**Milanovski, E. E.**) [On the Neogene and Anthropogene vulcanism of the Minor Caucasus]. Bull. Akad. Nat. geol. **10** 1956 : 42-66 5 fig. [In Russian.]

**Mookerjee, S., S.** Properties of sponge cells in isolation. Proc. Indian sci. Congr. **44** 1957 : 299 (2).

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**Rasmont, R., Bouillon, J. Castiaux, P. & Vandermeersche, G.** Structure submicroscopique de la collerette des choanocytes d'Éponges. C.R. Acad. Sci. Paris **245** 1957 : 1571-1574 2 figs.

**Reish, D. J. & Winter, H. A.** The ecology of Alamitos Bay, California, with special reference to pollution. Calif. Fish Game **40** 1954 : 105-121 1 fig.

**Rezvoï, P. D.** see Zhuraleva, I. T.

(**Roskin, G. I.**) [The nervous system of Porifera]. Adv. mod. Biol. Moscow **43** (2) 1957 : 199-207 8 fig. [In Russian.]

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**Sarà, M.** Variability in *Clathrina* and *Leucosolenia* sponges. Int. Congr. Zool. **14** 1953 (1956) : 518-519.

**Sarà, M. (1).** Osservazioni sugli amebociti eosinofili di *Clathrina* e *Leucosolenia* (Calcispongiae) e sulla loro colorazione vitale con blu trypan. Boll. Zool. **22** 1955 : 43-50.

**Sarà, M. (2).** Sulle cellule nutritrici nell'ovogenesi delle Calcispongie omoceli. Boll. Zool. **22** 1955 : 323-327 1 fig.

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**Sublette, J. E.** The ecology of the macroscopic bottom fauna in Lake Texoma (Denison Reservoir, Oklahoma) and Texas. Amer. midl. Nat. **57** 1957 : 371-402 5 figs.

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**Vandermeersche, G.** see Rasmont, R.

**Vinogradov, A. P.** The elementary chemical composition of marine organisms. Mem. Sears Fdn. Mar. Res. **2** 1953 : 176-193.

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**Winter, H. A.** see Reish, D. J.

**Wintermann-Kilian, G.** see Ankel, W. E.

**Wintermann-Kilian, G. and Ankel, W. E.** Über das Verhalten der Zellen bei der Vereinigung isolierter Epithelkugeln von *Ephydatia fluviatilis*. Roux Arch. Entw. Mech. Organ. **147** 1954 : 171-200 24 figs.

**(Yanshin, A. L. )**. [On the southwards sinking of the Ural plicated system, and on the tectonic nature of the southern Embensk elevation.] Bull. Soc. Nat. Moscow geol. **25** (5) 1955 : 51-73. [In Russian.]

**(Zavidova, A. Y.)**. [Pre-Paleozoic and Paleozoic deposits of the Moldavian Republic]. Bull. Soc. Nat. Moscow geol. **31** (5) 1956 : 31-50 12 figs. [In Russian.]

**(Zhuravleva, I. T. & Rezvoi, P. D.)**. [A contribution to the taxonomy of fossil Sponges and Archaeocyatha]. C.R. Acad. Sci. U.R.S.S. **111** (2) 1956 : 449-451 2 figs. [In Russian.]

## II.—SUBJECT INDEX

References to the "Titles" is by the name(s) of the Author(s).

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Phylogeny, **Jägersten, G.**  
Speciation, **Sarà, M. (8)**.  
Structure of invertebrates and vertebrates compared, **Bautzmann, H.**



## ANATOMY

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## HISTOLOGY

Ankel, W. E.; Ankel, W. E. and Wintermann-Kilian, G.; Ceccatty, M. P. de (1); Tuzet, O. and Paris, J.; Wintermann-Kilian, G. & Ankel, W. E.

## CYTOLOGY

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## PHYSIOLOGY

Buddenbrock, W. von ; Ceccatty, M. P. de (1); Marshall, F. H. A.; Spiegel, M.; Tuzet, O. and Paris, J.; Vinogradov, A. P.

## DEVELOPMENT

Ankel, W. E. (1); Egami, N. and Ishii, S.; Lutfy, R. G.; Lutfy, R. G. (1); Marshall, F. H. A.; Rasmont, R.; Sachwatkin, A. A.; Sarà, M. (2); Sarà, M. (6).

Dissociation and Regeneration.—Jones, W. C.; Mookerjee, S. S.; Paris, J.; Sarà, M. (3); Spiegel, M.; Tuzet, O. and Paris, J. (1).

Hybridization. — Sarà, M. (4).

## ECOLOGY

de Laubenfels, M. W.; Hartman, W. D.; Reish, D. J. and Winter, H. A.; Sarà, M. (4); Sarà, M. (5).

## DISTRIBUTION

## MARINE

British Isles.—Bassindale, R. & Barrett, J. H.

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Hawaii, de Laubenfels, M. W. (2).

## FRESHWATER

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U.S.A.—Sublette, J. E.

Brazil.—de Laubenfels, M. W. (1).

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Porifera in the deposits of the river Vilzui, Russia, Komar, Vl. A.

Porifera of Embensk elevation, Yanshin, A. L.

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Secondary. — Cretaceous, Hamp-ton, J. S.

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References to the "Titles" is by the name(s) of the Author(s).

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†Bactronellidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 100.

†Barroisidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] E 101.

†Camarocladidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 96.

†Celyphiidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 102.

†Chalarina suborder n., de Laubenfels, M. W. [in Moore, R. C.] : E 97.

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†Elasmocoeliidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 99.

†Elasmostomatidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E. 98.

†Lebetida order n., de Laubenfels, M. W. [in Moore, R. C.] : E 96.

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† Pharetrospingiidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 98.

† *Retispinopora tuberculata* sp. n., Cretaceous England, Hampton, J. S.: 54 text-fig. 1.

† Sestrostomellidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 97.

† Solenida order n., de Laubenfels, M. W. [in Moore, R. C.] : E 96.

† *Stellispongia bacilla* sp. n. Permian Tunisia, Termier, H. & G. : 622 fig. 5.

† Stellispongiidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 97.

† Stereina suborder n., de Laubenfels, M. W. [in Moore, R. C.] : E 99.

† Thalamida order n., de Laubenfels, M. W. [in Moore, R. C.] : E 100.

† *Waagenella* nom. n., pro *Steinmannia* Waag.-W., de Laubenfels, M. W. [in Moore, R. C.] : E 102.

† *Waagenium* nom. n. pro *Waagenella* (pre-occ.), de Laubenfels, M. W. (2) : 249.

† *Walcottium* nom. n. pro *Walcottella* (pre-occ.), de Laubenfels, W. M. (2) : 249.

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*Spongilla lacustris* gemmulation, Rasmont, R.; *S. discoides*=*Corvomeyenia*, Penney, J. T.

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† Chancelloriidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 93.

† Coeloscyphidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 87.

† Emplocidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 80.

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† Leptomitidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 69.

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† *Lonsda* nom. n. pro *Gonis* Lonsd., de Laubenfels, M. W. [in Moore, R. C.] : E 86.

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† Mylusiidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 82.

† *Mysterium* nom. n. pro *Mystrium* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 86.

† Multivasculatidae fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 77.

† *Napaena* nom. n. pro *Eudictyon* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 87.



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†*Octobrum* **nom. n. pro** *Rhabdium*  
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†*Ordinatus* **nom. n. pro** *Eutactus*  
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†*Ornatus* **nom. n. pro** *Phalacrus*  
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*thyris* Schrammen, de Laubenfels,  
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†*Xenoschrammenum* **nom. n. pro**  
*Amphiblestrum* Schrammen, de Lau-  
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*Plakortis lita* **sp. n., west central**  
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*lemus* Sollas, de Laubenfels, M. W.  
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†*Youngella* **nom. n. pro** *Chlamys*  
Y.-Y., de Laubenfels, M. W. [in Moore  
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(Vacant)

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*Aaptos chromis* **sp. n., west central**  
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*Aka trachys* **sp. n., west central**  
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*Atergia purpurea* **sp. n., west**  
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†*Choiidae* **fam. n., de** Laubenfels,  
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fels, M. W. [in Moore, R. C.] : E 41.

*Craniella abracadabra* **sp. n., west**  
central Pacific, de Laubenfels, M. W. :  
243, pl. xii a, text-fig. 167.

*Cryptax* **gen. n., orygmii** **sp. n.,**  
west central Pacific, de Laubenfels,  
M. W. : 214, fig. 146.



*Dorypleres pleopora* sp. n. Hawaii, de Laubenfels, M. W. (2) : 245, fig. 14; *D. splendens* sp. n., west central Pacific, de Laubenfels, M. W. : 226, pl. xb text-fig. 156.

†*Fusiferella* nom. n. pro *Atractophora* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 43.

*Hezekia walkeri* sp. n., west central Pacific, de Laubenfels, M. W. : 236 fig. 163.

*Jasplakina* gen. n., nux, sp. n., west central Pacific, de Laubenfels, M. W. : 228 fig. 157.

*Lipastrotethya* gen. n., ana sp. n., west central Pacific, de Laubenfels, M. W. : 235 fig. 162.

*Oxeosarcodea* gen. n., oinops sp. n., west central Pacific, de Laubenfels, M. W. : 230, fig. 158.

*Paratetilla lipotriaena* sp. n., west central Pacific, de Laubenfels, M. W. : 244 fig. 168.

†*Piraniidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 40.

*Prosuberites oleteira* sp. n., Hawaii, de Laubenfels, M. W. (2) : 243 fig. 12.

*Quasillina quiza* sp. n., west central Pacific, de Laubenfels, M. W. : 211 fig. 144.

*Ridleia peleia* sp. n., west central Pacific, de Laubenfels, M. W. : 207 fig. 141.

*Spirastrella potamophora* sp. n., west central Pacific, de Laubenfels, M. W. : 197 fig. 134.

*Stellettinopsis kaena* sp. n. Hawaii, de Laubenfels, M. W. (2) : 244 fig. 13; *S. isis* sp. n., west central Pacific, de Laubenfels, M. W. : 221 pl. xa text-fig. 153.

*Suberites domuncula* regeneration, Tuzet, O. and Paris, J. (1).

*Terpios aploos* sp. n., west central Pacific, de Laubenfels, M. W. : 210 fig. 143.

*Tethya lyncurium* regeneration, Paris, J.; histology, Tuzet, O. and Paris, J.; regeneration, Tuzet, O. and Paris, J. (1); *T. serica* differentiation of sex-cells, Egami, N. and Ishii, S.

*Topsentopsis* nom. n. pro *Topsentia* Clarke, de Laubenfels, M. W. [in Moore, R. C.] : E 41.

## (iv) LITHISTIDA

†*Astroboliidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 46.

†*Aulaxiniidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 57.

†*Aulocopiidae* fam. n. de Laubenfels, M. W. [in Moore, R. C.] : E 52.

†*Chiastoclonellidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 63.

†*Eospongiidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 64.

†*Gignouxidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 61.

†*Hallirhoidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 56.

†*Ingentilotus* nom. n. pro *Dactylopus* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 57.

†*Iouea* nom. n. pro *Phalangium* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 61.

†*Jereidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 57.

†*Jereopsiidae* fam. n., de Laubenfels, M. W. : E 48.

†*Mastosiidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 64.

†*Monarchopemmatites* nom. n. pro *Pseudopemmatites* King, de Laubenfels, N. W. [in Moore, R. C.] : E 56.

†*Multipocula* nom. n. pro *Polypora* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 49.

†*Oncodona* nom. n. pro *Oncophora* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 49.

†*Oreocyta* nom. n. pro *Cytorea* Pomel, de Laubenfels, M. W. [in Moore, R. C.] : E 49.

†*Ozotrachelus* nom. n. pro *Pachytrachelus* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 61.

†*Phacellopegma auriculata* sp. n. Permian Tunisia, Termier, H. & G. : 627 fig. 9.

†*Plinthodermatidae* fam. n. de Laubenfels, M. W. [in Moore, R. C.] : E 49.

†*Pseudoverruculinidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 63.

†*Scytaliidae* fam. n. de Laubenfels, M. W. [in Moore, R. C.] : E 45.

†*Timidella* nom. n. pro *Timorella* Gerth, de Laubenfels, M. W. [in Moore R. C.] : E 65.

†*Trachynoton* nom. n. pro *Trachynotus* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 49.

†*Urnacristata* nom. n. pro *Lophiophora* Schrammen, de Laubenfels, M. W. [in Moore, R. C.] : E 49.

†*Vermiculissimum* nom. n. pro *Stelidium* Schrammen, de Laubenfels, N. W. [in Moore, R. C.] : E 59.

†*Virgola* nom. n. pro *Virgula* Girty, de Laubenfels, N. W. [in Moore, R. C.] : E 55.

†*Yrrhiza* nom. n. pro *Rhizinia* Kolb., de Laubenfels, M. W. [in Moore, R. C.] : E 45.

†*Zittleus* nom. n. pro *Spongodiscus* Zittel, de Laubenfels, M. W. [in Moore, R. C.] : E 56.

#### (v) SIGMATOSCLEROPHORA

*Acervochalina velinea* sp. n., west central Pacific, de Laubenfels, M. W. : 52 fig. 30.

*Adocia viola* : 103, fig. 65, *turquoisia* : 106 fig. 67, spp. n., west central Pacific, de Laubenfels, M. W.

*Anaata lajorei* sp. n., west central Pacific, de Laubenfels, M. W. : 147 fig. 95.

*Auletta bia* sp. n., west central Pacific, de Laubenfels, M. W. : 170 pl. viii a, text-fig. 111.

*Azechina lissa* sp. n., Hawaii, de Laubenfels, M. W. (2) : 238 fig. 4.

*Axinella solenoeides* sp. n. Hawaii, de Laubenfels, M. W. (2) : 241 fig. 8 ; *A. minuta* sp. n. Israel, Lévi, C. : 205 fig. 4.

*Azinosa xutha* sp. n., west central Pacific, de Laubenfels, M. W. : 175 fig. 115.

*Azocielita linda* sp. n., west central Pacific, de Laubenfels, M. W. : 156 fig. 102.

*Azociella arteria* sp. n., west central Pacific, de Laubenfels, M. W. : 148 fig. 96.

*Biemna mnioeis* sp. n., west central Pacific, de Laubenfels, M. W. : 168 fig. 110.

*Callyspongia psammophora* sp. n., west central Pacific, de Laubenfels, M. W. : 86 fig. 52.

*Carmia stegoderma* sp. n., west central Pacific, de Laubenfels, M. W. : 154 fig. 100.

*Cribrachalina olemda* sp. n., west central Pacific, de Laubenfels, M. W. : 77 pl. iv a, text-fig. 47.

*Densa distincta* sp. n., Hawaii, de Laubenfels, M. W. (2) : 242 fig. 10 ; *D. mollis* sp. n., west central Pacific, de Laubenfels, M. W. : 191 fig. 128.

*Desmacella lampra* sp. n., west central Pacific, de Laubenfels, M. W. : 150 fig. 98.

*Dictyociona eurya* sp. n., west central Pacific, de Laubenfels, M. W. : 143 fig. 91.

*Dictyonella dasypphylla* sp. n., west central Pacific, de Laubenfels, M. W. : 195 pl. vii b text-fig. 132.

*Echinoclathria waldoschmitti* sp. n. west central Pacific, de Laubenfels, M. W. : 163 fig. 106.

*Fasubera debrumi*, sp. n., west central Pacific, de Laubenfels, M. W. : 159 fig. 103.

*Folitispa pingens* sp. n., west central Pacific, de Laubenfels, M. W. : 159 fig. 104.

*Gelliodes callista* sp. n., west central Pacific, de Laubenfels, M. W. : 90 pl. vc text-fig. 54.

*Halichondria adelpha* sp. n., west central Pacific, de Laubenfels, M. W. : 181 fig. 120.

*Haliclona streble* : 58 pl. xi a, text-fig. 33, *koremella* : 59 fig. 34 ; *korema* : 60 fig. 35, spp. n., west central Pacific, de Laubenfels, M. W.

†*Hamptoniidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 39.

†*Haplidistiidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 37.

†*Hazeliidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.] : E 38.



- Hiattrochota ditrochota* sp. n.: 122 fig. 76, *hiatti*: 125 fig. 78, *mystile*: 126 fig. 79, spp. n., west central Pacific, de Laubenfels, M. W.
- Homaxinella trachys*: 171 fig. 112, *phrix*: 172 fig. 113, spp. n., west central Pacific, de Laubenfels, M. W.; *H. anamesa* sp. n., Hawaii, de Laubenfels, M. W. (2): 241 fig. 9.
- Hoplochalina agoga* sp. n., west central Pacific, de Laubenfels, M. W.: 196 fig. 133.
- Hymeniacion aldis*: 187 fig. 185, *dystacta*: 188 fig. 126, spp. n., west central Pacific, de Laubenfels, M. W.
- Ichnodonax* gen. n.: 111, *kapne* sp. n., west central Pacific, de Laubenfels, M. W.: 112 pl. vi a text-fig. 71.
- Iotrochopsamma* gen. n., for *Iotrochota arbuscula* Whitelegge, de Laubenfels, M. W.: 127.
- Iotrochota pella* sp. n., west central Pacific, de Laubenfels, M. W.: 91 fig. 55.
- Iotrochostyla* gen. n.: 149, *iota* sp. n., west central Pacific, de Laubenfels, M. W.: 150 fig. 97.
- Kallypilidion* gen. n., *poseidon* sp. n., west central Pacific, de Laubenfels, M. W.: 110 pl. ix a, text-fig. 70.
- Katiba* gen. n., *milnei* sp. n., west central Pacific, de Laubenfels, M. W.: 186, fig. 124.
- Kieplitela* gen. n.: 116, *antrodes* sp. n., west central Pacific, de Laubenfels, M. W.: 117 pl. vii a text-fig. 73.
- Lissodendoryx oxytes*: 132 fig. 83, *calypa*: 133 pl. viii b text-fig. 84, spp. n., west central Pacific, de Laubenfels, M. W.
- Litaspongia* gen. n., genotype *Ophlitaspongia arbuscula* Row, de Laubenfels, M. W.: 162.
- †*Makinyama* nom. n. pro *Sagarites* Makinyama, de Laubenfels, M. W. [in Moore, R. C.]: E 39.
- Microcion haematodes* sp. n., Hawaii, de Laubenfels, M. W. (2): 240 fig. 6; *M. plinthina*: 144 fig. 92, *micronesia*: 145 fig. 93, spp. n., west central Pacific, de Laubenfels, M. W.
- Milene* nom. n. pro *Migas* Sollas, de Laubenfels, M. W.: 116.
- Myrmekioderma tylota* sp. n., west central Pacific, de Laubenfels, M. W.: 119 fig. 74.
- Nailondria* gen. n., *maza* sp. n., west central Pacific, de Laubenfels, M. W.: 182 fig. 121.
- Nara* gen. n., *nematifera* sp. n., west central Pacific, de Laubenfels, M. W.: 75 fig. 46.
- Neopetrosia pandora* sp. n., west central Pacific, de Laubenfels, M. W.: 81 fig. 49.
- Neoprosypa* gen. n., 180, *atina* sp. n., west central Pacific, de Laubenfels, M. W.: 190 fig. 127.
- Ophlitaspongia mima* sp. n., west central Pacific, de Laubenfels, M. W.: 161 fig. 105.
- †*Oppligera* nom. n., pro *Subularia* Oppliger, de Laubenfels, M. W. [in Moore, R. C.]: E 39.
- Oxycarmia confundata* sp. n., west central Pacific, de Laubenfels, M. W.: 155 fig. 101.
- Oxymycale stecarmia*: 93 fig. 56, *strongylophora*: 94 fig. 57, spp. n. west central Pacific, de Laubenfels, M. W.
- Pellina pinella*: 99 fig. 61, *carbonilla*: 100 fig. 62, spp. n., west central Pacific, de Laubenfels, M. W.
- Phycopsis terpnis* sp. n., west central Pacific, de Laubenfels, M. W.: 176 fig. 116.
- Prianos phlox*: 192 fig. 129, *melanos*: 193 fig. 130, *osiris*: 194 fig. 131, spp. n., west central Pacific, de Laubenfels, M. W.
- Protophlitaspongia ada*: 96 fig. 58, *aga*: 97 fig. 59, spp. n., west central Pacific, de Laubenfels, M. W.
- Pseudaxinyssa pitys* sp. n., west central Pacific, de Laubenfels, M. W.: 178 fig. 117.
- Quepanetsal* gen. n., *madidus* sp. n., west central Pacific, de Laubenfels, M. W.: 180 fig. 119.
- Reniera chrysa* sp. n., west central Pacific, de Laubenfels, M. W.: 75 fig. 45.

*Renioclona* subgen. n. (of *Hali-clona*) *rotographura* sp. n., west central Pacific, de Laubenfels, M. W.: 71 fig. 43.

*Rhaphisia hispida* sp. n., west central Pacific, de Laubenfels, M. W.: 184 fig. 123.

*Sigmatocia emphasis* sp. n., west central Pacific, de Laubenfels, M. W.: 109 fig. 69.

†*Takakkawiidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.]: E 38.

*Tedandoryx* gen. n., *lissa* sp. n., west central Pacific, de Laubenfels, M. W.: 130 fig. 82.

*Tedania oligostyla* sp. n., west central Pacific, de Laubenfels, M. W.: 127 fig. 80.

*Toxadocia tyrois* sp. n., west central Pacific, de Laubenfels, M. W.: 108 fig. 68.

*Toxiclona* gen. n., for *Siphonochalina gaussiana* Hentschel, de Laubenfels, M. W.: 73.

*Ulosa rhoda* sp. n., Hawaii, de Laubenfels, M. W. (2): 241 fig. 7; *U. spongia* sp. n., west central Pacific, de Laubenfels, M. W.: 164 fig. 107.

†*Wapkiidae* fam. n., de Laubenfels, M. W. [in Moore, R. C.]: E 37.

*Xestospongia sapra* sp. n., west central Pacific, de Laubenfels, M. W.: 79 fig. 48.

*Xytopsues zukerani* sp. n. Hawaii, de Laubenfels, N. W. (2): 237 fig. 2.

## KERATOSA

Biology of commercial sponges, Smith, F. G. W.

*Aulena concertina* sp. n., west central Pacific, de Laubenfels, M. W.: 14 fig. 6.

*Dendrilla verongiformis* sp. n. west central Pacific, de Laubenfels, M. W.: 45 fig. 25.

*Druinella tyroesis* sp. n., west central Pacific, de Laubenfels, M. W.: 27 fig. 14.

*Dysidea chlorea*: 37 fig. 19, *rhax*: 39 fig. 21, spp. n. west central Pacific, de Laubenfels, M. W.

*Euryspongia phlogera* sp. n., west central Pacific, de Laubenfels, M. W.: 43 fig. 23.

†*Felixium* nom. n., pro *Rhizocorallium* Felix, de Laubenfels, M. W. [in Moore, R. C.]: E 36.

*Halisarca metabola*: 49 fig. 28, *melana*: 50 fig. 29, spp. n., west central Pacific, de Laubenfels, M. W.

*Heteronema eubamma* sp. n., west central Pacific, de Laubenfels, M. W.: 12 text-fig. 5.

*Hippiospongia communis ammata* subsp. n., 4 pl. 1, pl. ii a text-fig. 1, *metachromia* sp. n., 11, text-fig. 4, west central Pacific, de Laubenfels, M. W.

*Inodes* nom. n. pro *Heteronema* (preocc.), de Laubenfels, M. W. (2): 249.

*Phyllospongia lekanis*: 15 pl. iii b text-fig. 7, *complex*: 18 pl. iii a text-fig. 8, spp. n., west central Pacific, de Laubenfels, M. W.

*Polyfibrospongia dysodes* sp. n., west central Pacific, de Laubenfels, M. W.: 19 fig. 9.

*Spongia officinalis matamata* subsp. n., west central Pacific, de Laubenfels, N. W.: 4 pl. 1, pl. ii a, text-fig. 1.

*Spongionella chondrodes* sp. n., west central Pacific, de Laubenfels, M. W.: 26 fig. 13.

*Thorectopsamma mela*, 29 pl. viii b text-fig. 15, *xana*: 32 fig. 16, spp. n., west central Pacific, de Laubenfels, M. W.

## †CYATHOSPONGIA

†*Aptocyathus* gen. n., *goodoni* sp. n. Cambrian U.R.S.S., Vologdin, A. G.: 42 pl. vi figs. 1–2 text-fig. 4.

†*Densocyathidae* fam. n., Vologdin, A. G.: 47.

†*Densocyathus* gen. n., p. 47, *sanaschtykolensis* sp. n., Cambrian U.R.S.S., Vologdin, A. G.: 48 pl. vi figs. 3–4 text-figs. 5–6.

†*Sajanocyathus* gen. n. p. 51, *ussovi* sp. n. Cambrian U.R.S.S., Vologdin, A. G.: 52 pl. vii figs. 1–3 text-figs. 7–8.